



Number: E-04-003

Date: April 16, 2004

## ENGINEERING DIRECTIVE

A handwritten signature in cursive script, reading "Thomas F. Broderick".

CHIEF ENGINEER

### DETECTABLE WARNING PANELS

Effective immediately, the *1996 Metric Edition Construction and Traffic Standard Details* and the *1977 [English Edition] Construction Standards* are amended with the following new drawings (attached):

**M/E 107.2.1     Wheelchair Ramp on Narrow Sidewalk**

**M/E 107.6.5     Detectable Warning Panel for Wheelchair Ramps**

These drawings have been issued to comply with the FHWA enforcement of the Federal Access Board's decision to require detectable warning panels at certain locations. Detectable warning panels are intended to alert sight-impaired pedestrians that they are about to enter potentially hazardous locations. The drawings also include a new configuration of wheelchair ramps that can be used for narrow sidewalks.

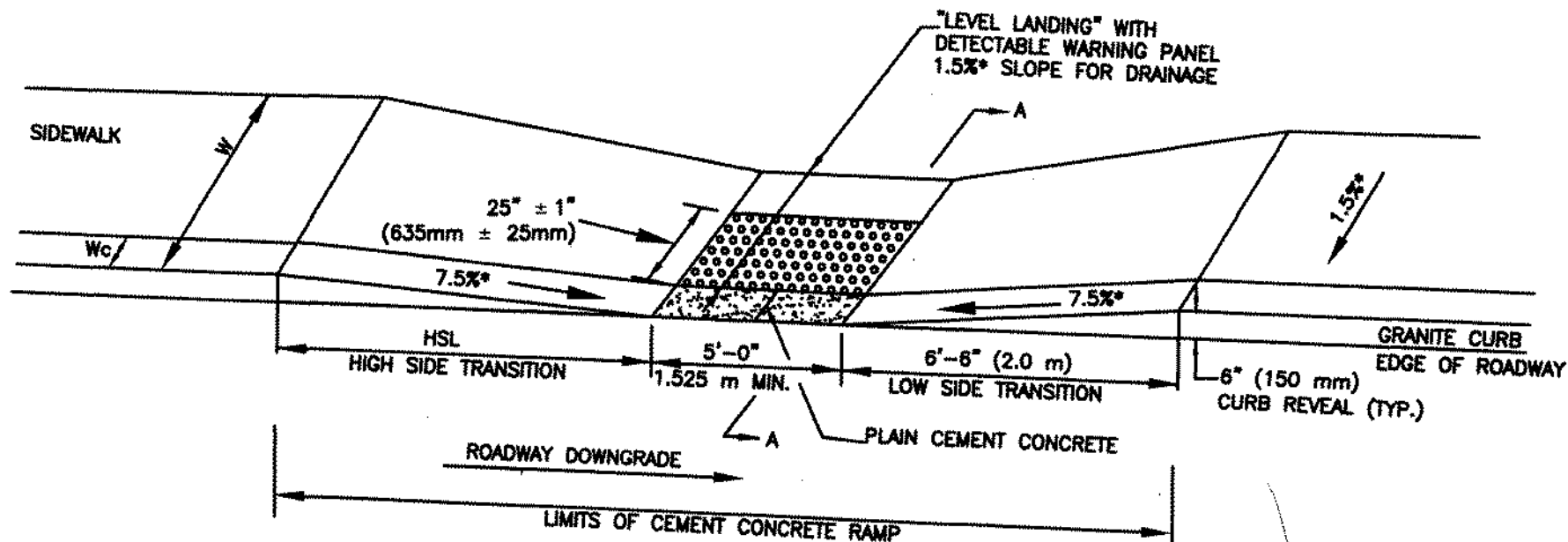
Detectable warning panels shall be installed on all wheelchair ramps as shown on the drawings. Panels shall also be installed on all sidewalks that are crossed by train tracks to warn pedestrians that they are about to enter a track area. These panels shall be 25" (635 mm) long in the direction of travel and shall be installed across the entire sidewalk. The designer shall show the proposed location(s) of warning panels on the plans after consulting with the operator of the tracks about the safe envelope required around the tracks. The Resident Engineer shall verify the actual location(s) of warning panels with the operator of the tracks prior to installation.

Designers shall include detectable warning panels in all applicable design documents immediately.

For projects already under construction or for which detectable warning panels are not otherwise included in the design documents at the time of construction, contractors shall install all required detectable warning panels in all locations where the applicable wheelchair ramps or sidewalk surfaces are not already completed, effective immediately.

Payment for detectable warning panels shall be considered incidental to the construction of the wheelchair ramps or sidewalks in which they are being installed.

Attachments:



**LEGEND**

HSL = HIGH SIDE TRANSITION LENGTH  
(SEE M/E 107.9.0)

W = SIDEWALK WIDTH

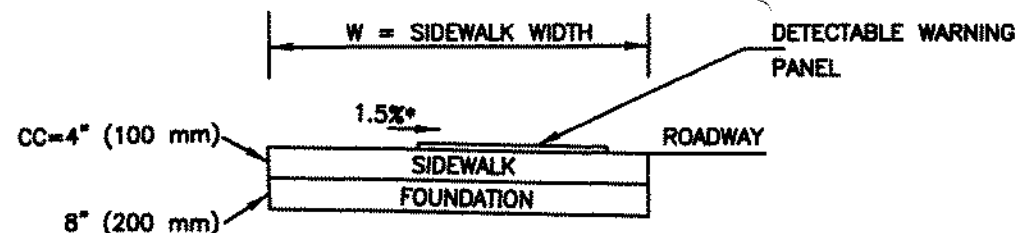
Wc = CURB WIDTH

\* = TOLERANCE FOR CONSTRUCTION  $\pm 0.5\%$

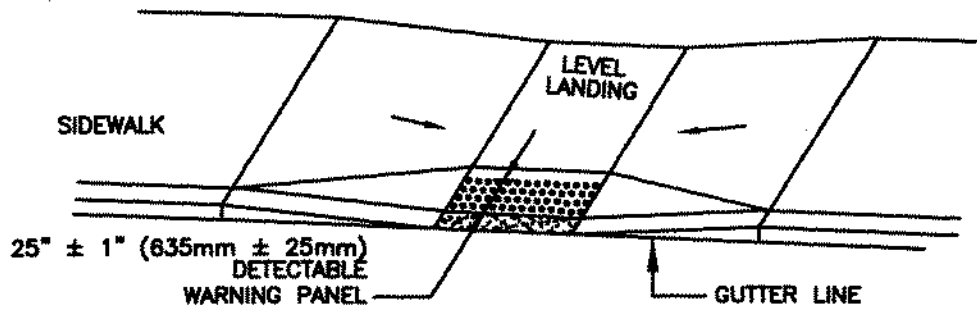
USABLE SIDEWALK WIDTH PER AAB =  $W - Wc$

USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE  
LESS THAN 4'-0" (1.22m)

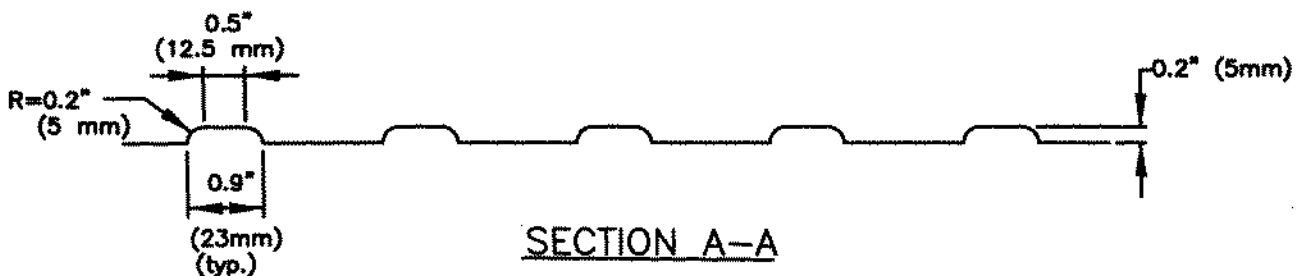
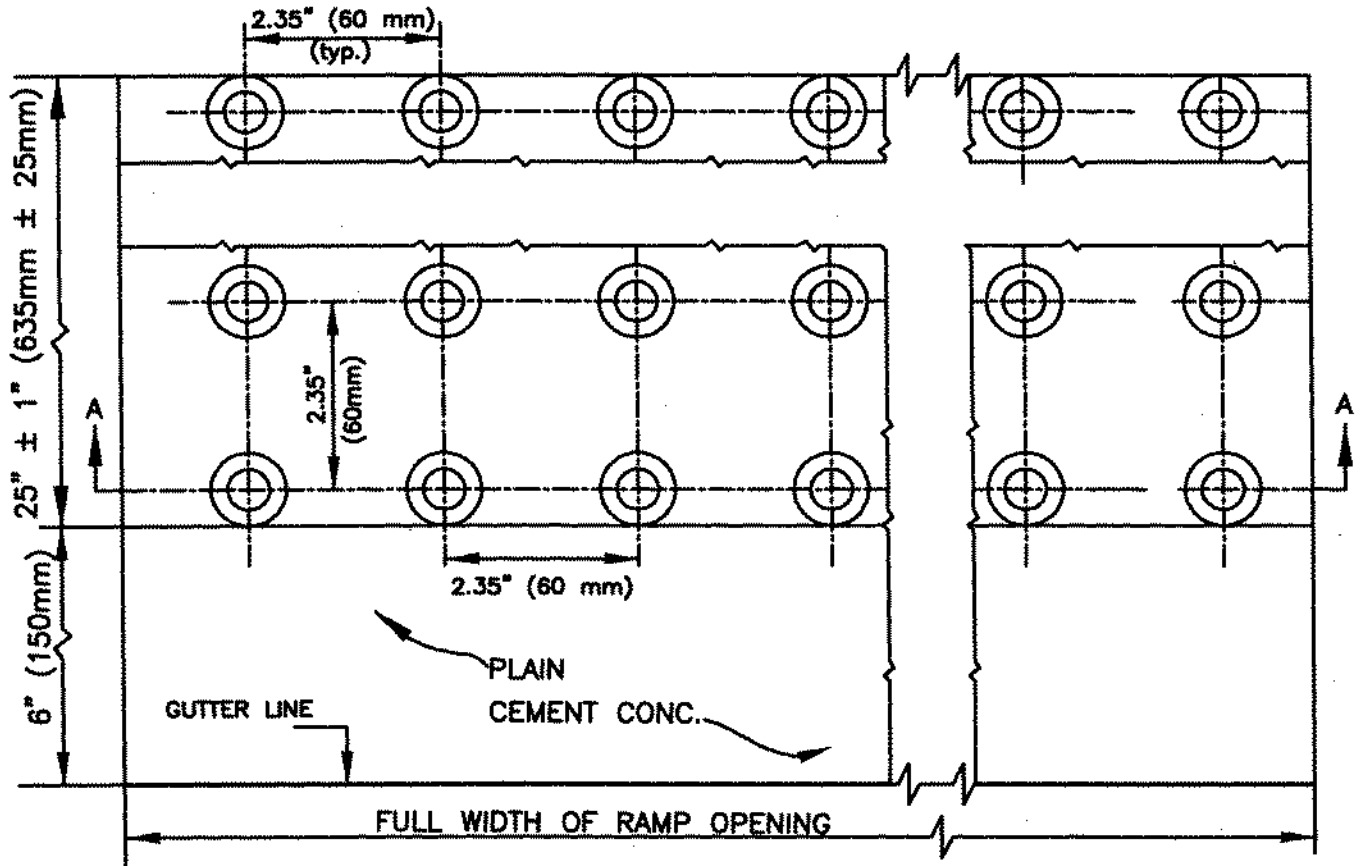
SEE M/E 107.6.5 FOR DETAILS OF DETECTABLE  
WARNING PANEL



**SECTION A-A**



### TYPICAL INSTALLATION



### NOTE:

PANELS MAY BE CONCRETE PRECAST OR CAST IN PLACE OR OTHER SUITABLE MATERIAL PERMANENTLY APPLIED TO THE RAMP. THERE MUST BE A MINIMUM OF 70% CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE.